



**Declaration Under 37 C.F.R. § 1.131  
Expedited Procedure – Art Unit 2618**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

McMullin *et al.*

Appl. No.: 10/649,807

Filed: August 28, 2003

For: **Apparatus and Method for Local  
Oscillator Calibration**

Confirmation No.: 5999

Art Unit: 2618

Examiner: Haroon, Adeel

Atty. Docket: 1875.4300000

**Declaration Under 37 C.F.R. § 1.131**

***Mail Stop AF***

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

The undersigned, Donald G. McMullin, Ramon A. Gomez, Lawrence M. Burns, and Myles Wakayama declare and state that,

1. We are the inventors of the above-captioned patent application, U.S. Appl. No. 10,649,807, filed August 28, 2003 (hereinafter the '807 Application).
2. Broadcom Corp. is the assignee of the '807 Application, and the invention(s) described therein.
3. Prior to August 21, 2003, we, the inventors, had completed the invention in the United States, as described and claimed in the '807 Application. This is evidenced by the following:
  - a. Exhibit A is a copy of an email from Jeffrey Helvey, outside patent counsel for the Broadcom Corporation, to us, the inventors of the '807 application. The email included as attachments: a final draft of the '807 patent application, a Declaration for Patent Application document (herein "Declaration"), and an Assignment document.

The final draft attached to the subject email is identical to the patent application that was filed as the '807 Application on August 28, 2003.

b. The subject email with the corresponding attachments was received by us, the inventors, prior to August 21, 2003. The date redacted from the subject email is prior to August 21, 2003.

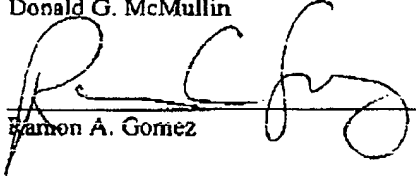
c. We were diligent from prior to August 21, 2003 to the filing of the '807 Application on August 28, 2003. In particular, we reviewed the final draft patent application attached to the subject email, and signed the Declaration and Assignment documents based on the final draft patent application, a copy of all of which were subsequently filed for the '807 patent application on August 28, 2003.

4. All statements made of our own knowledge are true and that all statements made on information and belief are believed to be true; and I further acknowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

1/3/07  
Date

  
Donald G. McMullin

1/3/07  
Date

  
Ramon A. Gomez

1/11/07  
Date

  
Lawrence M. Burns

1/5/07  
Date

  
Myles Wakayama

# COPY

Docket No. 1875.4300000 / BP 2915

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventors: (1) Donald G. McMullin, (2) Ramon A. Gomez, (3) Lawrence M. Burns and (4) Myles Wakayama, the undersigned inventors hereby sell and assign to Broadcom Corporation (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

*check applicable box(es)*

- ☒ for the United States of America (as defined in 35 U.S.C. § 100),  
☒ and throughout the world,

(a) in the invention(s) known as Apparatus and Method for Local Oscillator Calibration in Mixer Circuits for which application(s) for patent in the United States of America has (have) been executed by the undersigned on (1) \_\_\_\_\_; (2) \_\_\_\_\_; (3) 8/22/03; and (4) \_\_\_\_\_ (also known as United States Application No. (to be assigned), filed Herewith), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventors agree to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventors agree to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s)

COPY

Docket No. 1875.4300000 / BP 2915

thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

The undersigned inventors hereby represent that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventors hereby grant James D. Bennett, Registration No. 37,550, and David J. Rosmann, Registration No. 43,059, of Broadcom Corporation, 16215 Alton Parkway, Irvine, CA 92618-3616, and Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; Linda E. Alcorn, Esquire, Registration No. 39,588; Lawrence B. Bugaisky, Esquire, Registration No. 35,086; Donald J. Featherstone, Esquire, Registration No. 33,876; Robert C. Millonig, Esquire, Registration No. 34,395; Michael V. Messinger, Esq., Registration No. 37,575; Judith U. Kim, Esq., Registration No. 40,679; Timothy J. Shea, Jr., Esq., Registration No. 41,306; and Patrick E. Garrett, Esq., Registration No. 39,987; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventors on the date opposite his/her name.

(1) Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Donald G. McMullin

(2) Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Ramon A. Gomez

(3) Date: 8/22/03 Signature of Inventor: Lawrence M. Burns  
Lawrence M. Burns

(4) Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Myles Wakayama

COPY

Docket No. 1875.4300000 / BP 2915

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventors: (1) Donald G. McMullin, (2) Ramon A. Gomez, (3) Lawrence M. Burns and (4) Myles Wakayama, the undersigned inventors hereby sell and assign to Broadcom Corporation (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

*check applicable box(es)*

- ☒ for the United States of America (as defined in 35 U.S.C. § 100),
- ☒ and throughout the world,

(a) in the invention(s) known as Apparatus and Method for Local Oscillator Calibration in Mixer Circuits for which application(s) for patent in the United States of America has (have) been executed by the undersigned on (1) 8/26/03; (2) 8/27/03; (3) ; and (4) 8/27/03 (also known as United States Application No. (to be assigned), filed Herewith), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventors agree to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventors agree to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s)

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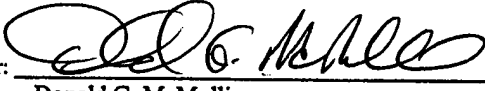
Docket No. 1875.4300000 / BP 2915

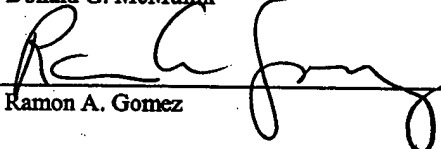
thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

The undersigned inventors hereby represent that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

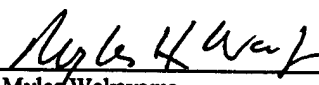
The undersigned inventors hereby grant James D. Bennett, Registration No. 37,550, and David J. Rosmann, Registration No. 43,059, of Broadcom Corporation, 16215 Alton Parkway, Irvine, CA 92618-3616, and Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; John M. Covert, Esquire, Registration No. 38,759; Linda E. Alcorn, Esquire, Registration No. 39,588; Lawrence B. Bugaisky, Esquire, Registration No. 35,086; Donald J. Featherstone, Esquire, Registration No. 33,876; Robert C. Millonig, Esquire, Registration No. 34,395; Michael V. Messinger, Esq., Registration No. 37,575; Judith U. Kim, Esq., Registration No. 40,679; Timothy J. Shea, Jr., Esq., Registration No. 41,306; and Patrick E. Garrett, Esq., Registration No. 39,987; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventors on the date opposite his/her name.

(1) Date: 8/26/03 Signature of Inventor:   
Donald G. McMullin

(2) Date: 8/27/03 Signature of Inventor:   
Ramon A. Gomez

(3) Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Lawrence M. Burns

(4) Date: 8/27/03 Signature of Inventor:   
Myles Wakayama

## ASSIGNMENT for Patent Application

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor Shahla Khorram, the undersigned inventor(s) hereby sell(s) and assign(s) to Broadcom Corporation, a California corporation having a principal place of business at 16215 Alton Parkway, Irvine, California 92618-7013 (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

check applicable box (es) ☒ for the United States of America (as defined in 35 U.S.C. § 100 et seq.),  
☒ and throughout the world,

(a) in the invention(s) known as **PROGRAMMABLE MIXER FOR REDUCING LOCAL OSCILLATOR FEEDTHROUGH AND RADIO APPLICATIONS THEREOF** (Attorney Docket No. BP 2147) for which application(s) for patent in the United States of America has (have) been executed by the undersigned on MARCH 20, 2002 in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise)

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...related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.

The undersigned inventor(s) hereby grant(s): Bruce E. Garlick, Registration No. 36,520, James A. Harrison, Registration No. 40,401, Timothy W. Markison, Registration No. 33,534, and Shayne X. Short, Registration No. 45,105, and Robert C. Strawbrich, Registration No. 36,692; all of Garlick, Harrison & Markison, LLP, P.O. Box 160727, Austin, Texas 78716-0727, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Shahla Khorram: Shahla Khorram Date: 3/28/02



COPY

Joint

ASSIGNMENT

WHEREAS, WE, PIETER VORENKAMP, KLAAS BULT, and FRANK CARR residing at

5 Timberland, Aliso Viejo, California 92656;  
Mesdaglaan 1C, 3735 LK Bosch en Duin, The Netherlands; and  
77 Bell Canyon Drive, Dove Canyon, California 92679;

respectively, have invented certain new and useful improvements disclosed in an application for United States Letters Patent entitled **SYSTEM AND METHOD FOR COARSE/FINE PLL ADJUSTMENT**, filed November 12, 1999, Application No. 09/438,688.

AND WHEREAS, BROADCOM CORPORATION, a California corporation, having a place of business at 16215 Alton Parkway, Irvine, California 92618-3616 (hereafter, together with any successors, legal representatives or assigns thereof, called "ASSIGNEE") wants to acquire the entire right, title and interest in and to said improvements and application.

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to said improvements, and said application and all divisions and continuations thereof, and all United States Letters Patents which may be granted thereon and all reissues, reexaminations and extensions thereof, and all priority rights under all available International Agreements, Treaties and Conventions for the protection of intellectual property in its various forms in every participating country, and all applications for patents (including related rights such as utility-model registrations, inventor's certificates, and the like) heretofore or hereafter filed for said improvements in any foreign countries, and all patents (including all continuations, divisions, extensions, renewals, substitutes, and reissues thereof) granted for said improvements in any foreign countries; and we hereby authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty it is to issue patents on applications as aforesaid, to issue all patents for said improvements to ASSIGNEE in accordance with the terms of this Assignment;

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to ASSIGNEE any facts known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute and reissue applications, make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for said improvements in all countries.

ASSIGNMENT  
Docket No. 34015/LTR/B600

COPY

Joint

IN TESTIMONY WHEREOF, I hereunto set my hand this 7<sup>th</sup> day of Feb, 192000



Pieter Vorenkamp

STATE OF )  
COUNTY OF )

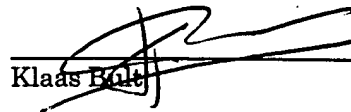
On \_\_\_\_\_, before me \_\_\_\_\_, Notary Public, personally appeared Pieter Vorenkamp personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
Signature of Notary

\*\*\*\*\*

IN TESTIMONY WHEREOF, I hereunto set my hand this 7<sup>th</sup> day of Feb, 192000



Klaas Bult

STATE OF )  
COUNTY OF )

On \_\_\_\_\_, before me \_\_\_\_\_, Notary Public, personally appeared Klaas Bult personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
Signature of Notary

\*\*\*\*\*

ASSIGNMENT  
Docket No. 34015/LTR/B600

COPY

Joint

IN TESTIMONY WHEREOF, I hereunto set my hand this 16<sup>th</sup> day of Feb, 192000

Frank Carr

STATE OF )  
COUNTY OF )

On \_\_\_\_\_, before me \_\_\_\_\_, Notary Public,  
personally appeared Frank Carr personally known to me (or proved to me on the basis of satisfactory  
evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me  
that he executed the same in his authorized capacity, and that by his signature on the instrument the  
person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
Signature of Notary

LLW PAS227474.1\*-1/12/00 9:28 AM

**From:** Jeffrey Helvey  
**To:** burnslaje@yahoo.com ; mcmullin@broadcom.com; myles@broadcom.com;  
rgomez@broadcom.com  
**Date:** (redacted)  
**Subject:** BP 2915 : LO Calibration Patent Application

Re: BP 2915 (1875.4300000) : APPARATUS AND METHOD FOR LOCAL OSCILLATOR CALIBRATION  
IN MIXER CIRCUITS

Gentlemen,

Attached is the final draft of the above mentioned patent application. This application has been revised in accordance with your comments and therefore should be in condition for filing at the USPTO. Please review the final draft and execute the attached documents if the application meets with your approval. Otherwise, provide me with any further comments. Please return the executed documents to me by fax and/or return mail.

Please be reminded that the duty of disclosure continues throughout the entire patent application process, and ends only with the actual issuance of a patent. Therefore, if anyone substantively involved in the patent application process becomes aware of information that might be considered material, please forward it to us immediately.

Thanks,  
Jeff Helvey  
Sterne, Kessler, Goldstein, & Fox  
1100 New York Ave, NW.  
Washington DC., 20005  
(202)772-8675 (voice)  
(202)371-2540 (fax)  
[jhelvey@skgf.com](mailto:jhelvey@skgf.com)

**CC:** Dhen@broadcom.com; nowicki@broadcom.com

Exhibit A